

60-SECOND SUMMARY

The digital economy is booming, and the North is currently at the forefront of this transformation. Each of the North's regions has a unique digital specialism – from data analytics in Leeds, to digital media in Manchester, to gaming in Sunderland – and the North's digital economy as a whole is worth £9.9 billion to the national economy, accounting for 5.2 per cent of the region's GVA.

But if the North is unable to provide sufficient talent to facilitate the sector's continued growth, then a huge opportunity will be lost. Across the whole of the UK, many digital tech companies currently find it very hard to access skilled talent and the sector faces a large skills gap, but this is a particular problem in the North. Currently we rely on skilled migrant labour to fill this gap, but the spectre of Brexit is causing many to question whether they will have access to the talent necessary to grow their businesses in the coming years.

This digital skills gap, combined with a continued failure to invest in the North's digital and transport infrastructure, is perhaps the greatest threat to the success of the digital tech sector in the North over the coming years.

The North should learn from best practice from around the country, and around the world, to identify innovative solutions to close the skills gap. In this report, we highlight examples of such best practice – from digital degree apprenticeships in Sheffield, to integrated digital education in Estonia – and identify the lessons learned from these examples. We also recommend short- and long-term solutions to address the problem.

ANALYSIS

IPPR North has worked with Emsi¹ and Burning Glass² to analyse the skills gaps for the digital sector in the North, and we find that there are substantially more vacancies for high-skilled digital tech professionals than there are applicants to fill them. Specifically, we have found that:

- **all of the North's regions** have substantial digital skills gaps for digital tech workers educated to **higher education** level or equivalent
- in contrast, **none of the North's** regions have digital skills gaps for digital tech workers educated to **further education** level or equivalent
- the greatest digital skills gaps exist in the North West, and the lowest in the North East
- the highest level of demand for digital workers as a proportion of the economically active population is found in Cheshire and Warrington, followed closely by Greater Manchester.

- salaries for digital tech workers are highest in the North East and lowest in Yorkshire and the Humber
- proportionally more ICT apprenticeships are undertaken in the North than elsewhere in the country; the North East has by far the highest proportion of ICT apprenticeship starts.

We identify reasons for these skills gaps at every stage of the education and skills system, some of which include:

- ICT education is not integrated enough with the wider curriculum, and many ICT teachers do not have the necessary skills to teach the curriculum
- the further education system is subject to too much policy turbulence, and does not have enough funding, to provide students with the education necessary to enter the digital tech sector
- there are not enough students undertaking higher-level apprenticeships in general, and ICT apprenticeships specifically, for this to constitute a significant route into the sector.

1 <http://www.economicmodelling.co.uk/>

2 <http://burning-glass.com/>

We then look at examples of best practice from around the world relating to each of these challenges, including:

- the ProgeTiger Programme in Estonia, which provides integrated ICT education from preschool upwards
- Webactivate in Ireland, which gives unemployed young people the opportunity to gain digital qualifications, while giving them on-the-job training with local businesses
- Sheffield University's Digital Degree Apprenticeships, which allow students to gain a BSc honours degree while providing practical on-the-job training.

RECOMMENDATIONS

Reducing the skills gap to 2020

1. **Local enterprise partnerships should build on existing work to draft digital skills strategies**, in partnership with relevant local and combined authorities, and the third and private sectors. Strategies should include plans to map local digital skills provision, provide digital skills training for NEETs (young people not in education, employment or training), make the best use of further education, promote diversity and encourage collaboration.
2. **Local businesses should pool the funding they will receive as part of the apprenticeship levy and invest this in a set of agreed strategic initiatives to promote digital skills in their area**, as detailed in the LEP digital skills strategies outlined above.
3. **Greater powers over funding for adults' skills should be devolved to local and combined authorities**, who should work with LEPs, and the private and third sectors to ensure further education is meeting the needs of private businesses, particularly in relation to the digital sector.

4. **If the Brexit agreement includes provisions to end free movement of people from Europe into the UK, this should be accounted for by increasing overall tier 1 and 2 visa issuances for digital tech workers.** Alongside this, tier 1 visa conditions should be devolved to northern combined authorities, who should work with TechCity UK to deliver an expanded and North-focused version of the Tech Nation Visa Scheme.

Closing the skills gap to 2050

5. **Curriculum:** The latest digital technologies should be used in all lessons, by both teachers and learners, from Early Years to secondary school, in order to **embed digital skills throughout the curriculum.**
6. **CPD: More funding should be provided for career and professional development training (CPD) for all teachers**, especially targeted at those teaching the new coding curriculum. This should take the form of public investment in social infrastructure, which – through eventual uplifts in employment – will pay for itself in the long term.
7. **Careers: Government should provide schools with adequate funding to discharge their statutory duty to provide independent careers advice and guidance.** The National Careers Service should be extended to allow it to perform this supporting role for schools.
8. **Collaboration: Schools careers services should take the lead in establishing relationships between businesses, schools and the voluntary sector**, and in identifying how businesses and the voluntary sector could productively engage career advisory activities within the curriculum.

For the full report, including all references, data sources and notes on methodology, see: www.ippr.org/publications/devo-digital

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